ETC

MONITOR

CD 1035E
CD 1035EM
CD 1035EP
CD 1035PM

THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO ETC GROUP. ANY REPRODUCTION DISCLOSURE OR USE IS EXPRESSLY PROHIBITED EXCEPT AS ETC GROUP MAY OTHERWISE AGREE IN WRITING

A B C D E F G H

1 2 3 4 5

V-DY

1/2P203 V+ V-

IC301 TDA1675A

C310 1000U 35V
C309 1000U 25V
C308 0.1U 50V
C307 0.1U 50V
R320 39K
C305 0.1U 100V MEF
R319 470K
VR304 100KB V-LINE
C306 0.1U 100V MEF
R321 10K
R316 12K
R317 6.8K
D306 1N4148
C303 0.22U 100V MEF
D309 1N4148
C302 0.47U 50V PEI
R318 150K
C311 0.22U 100V MEF
R314 330 1/2W
R315 2.2K 1/4W
C312 22000 16V
C313 1000 25V
R313 1.8K 1/4W
R312 120 1/4W
R311 1K 1/4W
R310 0.82 3W MOF
R352 120 3W MOF
Q304 2SC2236
B348 2.2K
VR307 10KB V-CENTER
R350 1K
Q305 2SA966
C321 100U 35V
VR303 1KB TRAPEZOID
D307 1N4002
R322 1 1W MOF
VR302 100KB V-SIZE
VR301 100KB V-SIZE
1/2P301
R353 2.2K
R355 470 1/4W
R354 2.2K 1/4W
Q306 2SC945
R150 68 5W MOF
IC402 7812
C135 47U 25V
C405 100U 25V
C406 0.1U 25V
1/2P204
P401
P404
VR401 10KB CONTRAST
R409 1.5K
84V
12V
7.5V
CLAMP CONT
61
GND
GND
P402
P403
C441 0.1U 50V
C411 0.1U 50V
R410 75 1/4W
C407 47U 16V
R411 75 1/4W
C408 47U 16V
R412 75 1/4W
C409 47U 16V
C410 47U 16V
R416 10K
R417 10K
R418 10K
C414 0.1U 50V
C415 0.1U 50V
C416 0.1U 50V
R415 1K
VR408 SUB-CONTRAST 10KB
R414 1K
L408 25mH
C439 0.1U 50V
C440 47U 16V
C418 0.1U 50V
C417 0.1U 50V
R413 1K
L407 25mH
C437 0.01U 500V
C438 10U 160V
R402 2.2K
C401 0.1U 50V
C403 4.7U 50V
Q401 2SA733
R403 47K
Q402 2SC945
R404 10K
R401 1K
P201
H
GND
V
R202 470
R302 470
R201 470
R301 470
IC201 W18041
H_I/P
V_I/P
GND
H_O/P
V_O/P
CLAMP
FH33K
RCLAMP
CR201 3.58MHz
OSC_IN
OSC_OUT
1024X768
800X600
640X480
640X400
640X350
VDD
R247 10M
C201 47P 50V
C202 47P 50V
D314 1N4148 R303 24K
D313 1N4148 R304 130K
D312 1N4148 R305 100K
D311 1N4148 R306 56K
D310 1N4148 R307 27K
C301 0.1U 25V
R308 330K
D301 1N4148
D302 1N4148
D303 1N4148
D304 1N4148
D305 1N4148
R334 10K
R333 33K
R332 4.7K
R331 33K
R330 33K
R245 10K
C203 0.1U 50V
C121 1000 16V
R405 1K
R205 1.5K
R204 10K
Q201 2SC945
31.5K 35.5K
R207 2.2K
R206 10K
Q203 2SA733
Q202 2SA733
R210 2.2K
R209 10K
R208 1K
R211 1K
R324 15K
R326 10K
R323 10K
IC302B
C314 10U 25V
R325 10K
R327 1K 1/4W
1/2LM358N
R328 4.7K
R329 4.7K
Q301 2SC945
R336 4.7K
R335 10K
R337 10K
C320 0.1U 25V
C315 10U 25V
R309 100
VR305 5KB PIN.
IC302A
C219 10U 25V
R330 10K
1/2LM358N
R339 1K 1/4W
C218 10U 25V
R231 220 5W MOF
R232 150 1/2W
0.033U 50V PEI
T201 EI-19
R233 22 1/4W
Q209 2SC1213
C221 47U 25V
C220 47U 25V
D208 FR104
D207 FR104
T202 EI-19
VR203 2KB
Q211 2SC2236
Q210 2SC5129 (BU2508F) (BU2508F I)
Q212 2SA966
C223 220P 1KV
R234 120 3W MOF
D205 FR306
R215 2.2K 1/4W
C216 0.1U 50V

D E F G H I J K

V-DY
1/2P203
V+
V-
Q304 2SC2236
B349 2.2K
VR307 10KB V-CENTER
R352 120 3W MOF
R350 1K
Q305 2SA966
C321 1000U 35V
VR303 1KB TRAPEZOID
C311 0.22U 100V MOF
R314 330 1/2W
C312 2200U 16V
C313 1000U 25V
R311 1K 1/4W
R310 0.82 3W MOF
R315 2.2 1/4W
R313 1.8K 1/4W
R312 120 1/4W
P401
P404
1/2P204
P402
P403
1/2P301
B GND 6 GND R GND GND V H GND
H GND V
84V 12V 7.5V CLAMP CONT G1 GND GND
R409 1.5K
VR401 10KB CONTRAST
R150 68 5W MOF
IC402 7812
C135 47U 25V
C405 100U 25V
C406 0.1U 25V
R402 2.2K
C401 0.1U 50V
C403 4.7U 50V
R403 47K
Q401 2SA733
Q402 2SC945
R404 10K
R401 1K
R410 75 1/4W
R411 75 1/4W
R412 75 1/4W
C407 47U 16V
C408 47U 16V
C409 47U 16V
C410 47U 16V
R416 10K
R417 10K
R418 10K
C441 0.1U 50V
C411 0.1U 50V
C414 0.1U 50V
C415 0.1U 50V
C416 0.1U 50V
IC401 LM1203N
R415 1K
VR408 SUB-CONTRAST 10KB
R414 1K
L408 4.7UH
C439 0.1U 50V
C440 47U 16V
C418 0.1U 50V
C417 0.1U 50V
R413 1K
L407 4.7UH
C437 0.01U 500V
C438 10U 160V
C419 0.1U 50V
R419 47
VR402 100B R-DR
R422 220
C420 0.1U 50V
R420 47
VR403 100B G-DR
R423 220
R421 47
VR404 100B B-DR
R424 220
R425 6.8K
VR407 5KB B-BIAS
VR406 5KB G-BIAS
VR405 5KB R-BIAS
R426 1K
Q407 2SC3953E
R427 22
C421 0.1U 50V
C424 0.01U 50V
R442 1K
L401 4.7UH
R445 1.5K 5W
Q410 2SC2229 (BF422)
R448 33 1/4W R.FUSIBLE
D401 1N4148
D402 1N4148
C430 0.01U 500V
Q413 2SA949 (BF423)
R449 33 1/4W R.FUSIBLE
R430 22
Q404 2SC1906
R433 390 1/4W
R436 150 1/4W
C427 56P 50V
R439 100
Q408 2SC3953E
R428 22
C422 0.1U 50V
C425 0.01U 50V
R443 1K
L402 4.7UH
R446 1.5K 5W
Q411 2SC2229 (BF422)
R450 33 1/4W R.FUSIBLE
D403 1N4148
D404 1N4148
C431 0.01U 500V
Q414 2SA949 (BF423)
R451 33 1/4W R.FUSIBLE
R431 22
Q405 2SC1906
R434 390 1/4W
R437 150 1/4W
C428 56P 50V
R440 100
Q409 2SC3953E
R429 22
C423 0.1U 50V
C426 0.01U 50V
R444 1K
L406 4.7UH
R447 1.5K 5W
Q412 2SC2229 (BF422)
R452 33 1/4W R.FUSIBLE
D405 1N4148
D406 1N4148
C432 0.01U 500V
Q415 2SA949 (BF423)
R453 33 1/4W R.FUSIBLE
R432 22
Q406 2SC1906
R435 390 1/4W
R438 150 1/4W
C429 56P 50V
R441 100
C433 10U 160V
(13) (14) (15) (16) (17) (21) (22) (23) (29) (33) (34) (35) (36) (37)

IC302B
R328 4.7K
R329 4.7K
Q301 2SC945
R327 1K 1/4W
R336 4.7K
R335 10K
R337 10K
C320 0.1U 25V
C315 10U 25V
R309 100
VR305 5KB PIN.
IC302A
1/2LM358N
R339 1K 1/4W
C316 22U 35V
C318 10U 25V
R330 10K
C218 10U 25V
R231 220 5W MOF
R232 150 1/2W
0.0033U 50V PEI
T201 EI-19
R233 32 1/4W
Q210 2SC5129 (BU2508DF) (BU2508FI)
Q209 2SC1213
R215 2.2K 1/4W
T202 EI-19
D207 FR104
D208 FR104
VR203 2KB
Q211 2SC2236
Q212 2SA966
C220 47U 25V
C221 47U 25V
T203 FBT
C223 220P 1KV
R234 120 3W MOF
L801 LINEAR
D205 FR306
C442 0.1U 50V
24V
1/2P203
H-
H+
H-DY
HV
FOCUS
SCREEN
R238 470K

NOTE:
1. THE U
2. ALL R

REVISIONS				
ECN NO.	REV.	DESCRIPTION	DATE	APPROVED

CD-1035E , CD-1035EM

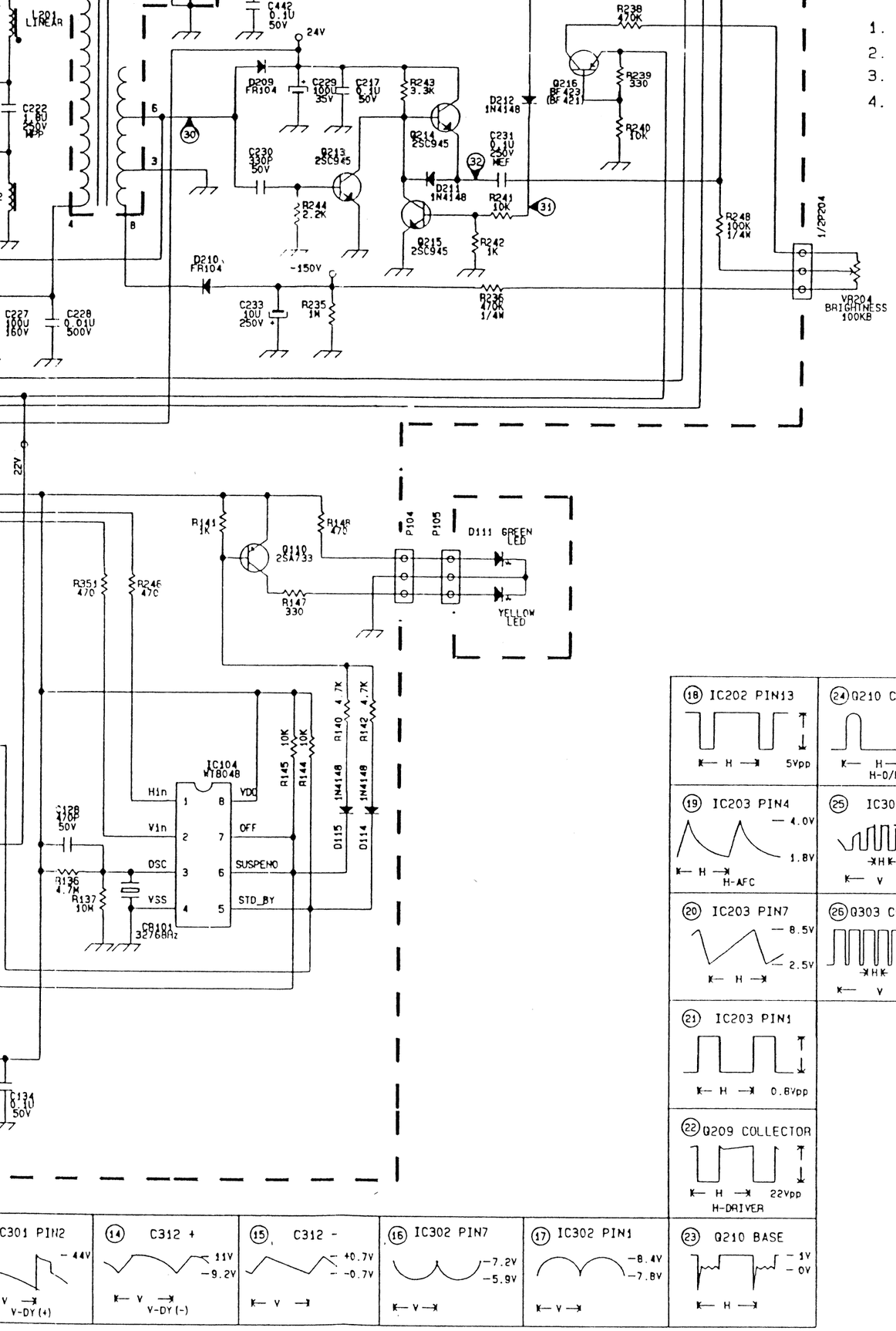
&

CD-1035EP , CD-1035PM

VGA/SVGA MONITOR SCHEMATIC DIAGRAM

NOTE:

1. THE UNIT OF RESISTANCE "OHM" IS OMITTED (K-1000 OHMS AND M-1MEG OHM).
2. ALL RESISTORS ARE 1/6 WATT UNLESS OTHERWISE SPECIFIED.
3. THE UNIT OF CAPACITANCE "uF" IS OMITTED UNLESS OTHERWISE NOTED "PF".



1. THE UNIT OF RESISTANCE "OHM" IS OMITTED (K-1000 OHMS AND M-1MEG OHM).
2. ALL RESISTORS ARE 1/6 WATT UNLESS OTHERWISE SPECIFIED.
3. THE UNIT OF CAPACITANCE "uF" IS OMITTED UNLESS OTHERWISE NOTED "PF".
4. COMPONENTS MARKED WITH " ⚠ " OR SHADED HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY, BEFORE REPLACING ANY OF THESE COMPONENTS, WITH ONLY SAME TYPE AND RATING OF COMPONENTS.

		CD-1035E , CD-1035EM	CD-1035EP , CD-1035PM
1	R236	470K 1/4W	820K 1/4W
2	R238	470K 1/6W	220K 1/6W
3	R304	130K 1/6W	300K 1/6W
4	R305	100K 1/6W	180K 1/6W
5	R306	56K 1/6W	56K 1/6W
6	R307	27K 1/6W	22K 1/6W
7	R308	330K 1/6W	220K 1/6W
8	R310	0.82 3W MOF	1 1W MOF
9	R311	1K 1/4W	2K 1/4W
10	R313	1.8K 1/4W	2.7K 1/4W
11	R319	470K 1/6W	560K 1/6W
12	R320	39K 1/6W	68K 1/6W
13	R321	10K 1/6W	120K 1/6W
14	C222	1.8U 250V MPP	1.2U 250V MPP
15	C224	1.8U 250V MPP	1.2U 250V MPP
16	C225	5100P 1.6KV PPS	3300P 1.6KV PPS
17	C226	5100P 400V PPN	3900P 400V PPN
18	C313	100U 25V	47U 25V
19	L201	36080106330 (8.7UH)	36080102741 (12.8UH)
20	L202	36080111431 (300UH)	36080110833 (500UH)
21	P203	10mm-7.5mm-7.5mm	8mm-6mm-6mm
22	J30	****	JUMP
23	CRT/E	3722T35C231	3722T35C436
24			
25			

(18) IC202 PIN13 — H, 5Vpp

(24) Q210 COLLECTOR — H, H-O/P, 1100Vpp

(27) C204 — V, 150Vpp

(28) C224 — V, 130V

(31) V-BLANKING — V, 18Vpp

(34) IC401 PIN14 — H, CLAMP PULSE, 12Vpp

(37) R, G, B O/P — H, 5-35Vpp

(19) IC203 PIN4 — 4.0V, 1.8V, H, H-AFC

(25) IC303 PIN1 — 4V, H, V

(27) Q204 — H, 150V

(29) B+ — 31.5KHz 84V; 35.5KHz 97V

(32) — H, V, 25Vpp

(35) IC401 PIN16, 20, 25 — H, 2-4Vpp

(38) — H, V, 25Vpp

(20) IC203 PIN7 — 8.5V, 2.5V, H

(26) Q303 COLLECTOR — H, V, 22Vpp

(28) C224 — 130V, 0V, H

(30) H-BLANKING — 24V, H

(33) R, G, B I/P — H, 0.7Vpp

(36) Q407, Q408, Q409 COLLECTOR — H, 5-35Vpp

(39) R-K, G-K, B-K — H, 5-35Vpp

(21) IC203 PIN1 — H, 0.8Vpp

(22) Q209 COLLECTOR — H, H-DRIVER, 22Vpp

(23) Q210 BASE — 1V, 0V, H

(13) C301 PIN2 — 44V, V, V-DY (+)

(14) C312 + — 11V, 9.2V, V, V-DY (-)

(15) C312 - — +0.7V, -0.7V, V

(16) IC302 PIN7 — 7.2V, 5.9V, V

(17) IC302 PIN1 — 8.4V, 7.8V, V

ETC GROUP

DRAWN BY		DATE	23
DESIGNED BY		DATE	
APPROVED BY		DATE	

GENERAL NOTE:

(1) DRAWN IN 3rd ANGLE PROJECTION
(2) DIMENSION IN _____
(3) NOMINAL WALL THICKNESS IS _____ UNLESS OTHERWISE SPECIFIED
(4) GENERAL TOLERANCE UNLESS OTHERWISE SPECIFIED
LINEAR MEASUREMENT .XX INCHES ±0.01"
.XXX INCHES ±0.005"
X mm ±0.2mm
.X mm ±0.1mm
ANGULAR MEASUREMENT ±0.5°

PROJECT NAME	PART NO.	REV.
PART NAME	PART NO.	REV.
MATERIAL	COLOR	
FINISH / SCALE	TOOL NO.	
DO NOT SCALE DRAWING	SHEET OF	

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3. THE
4. COM
IMP
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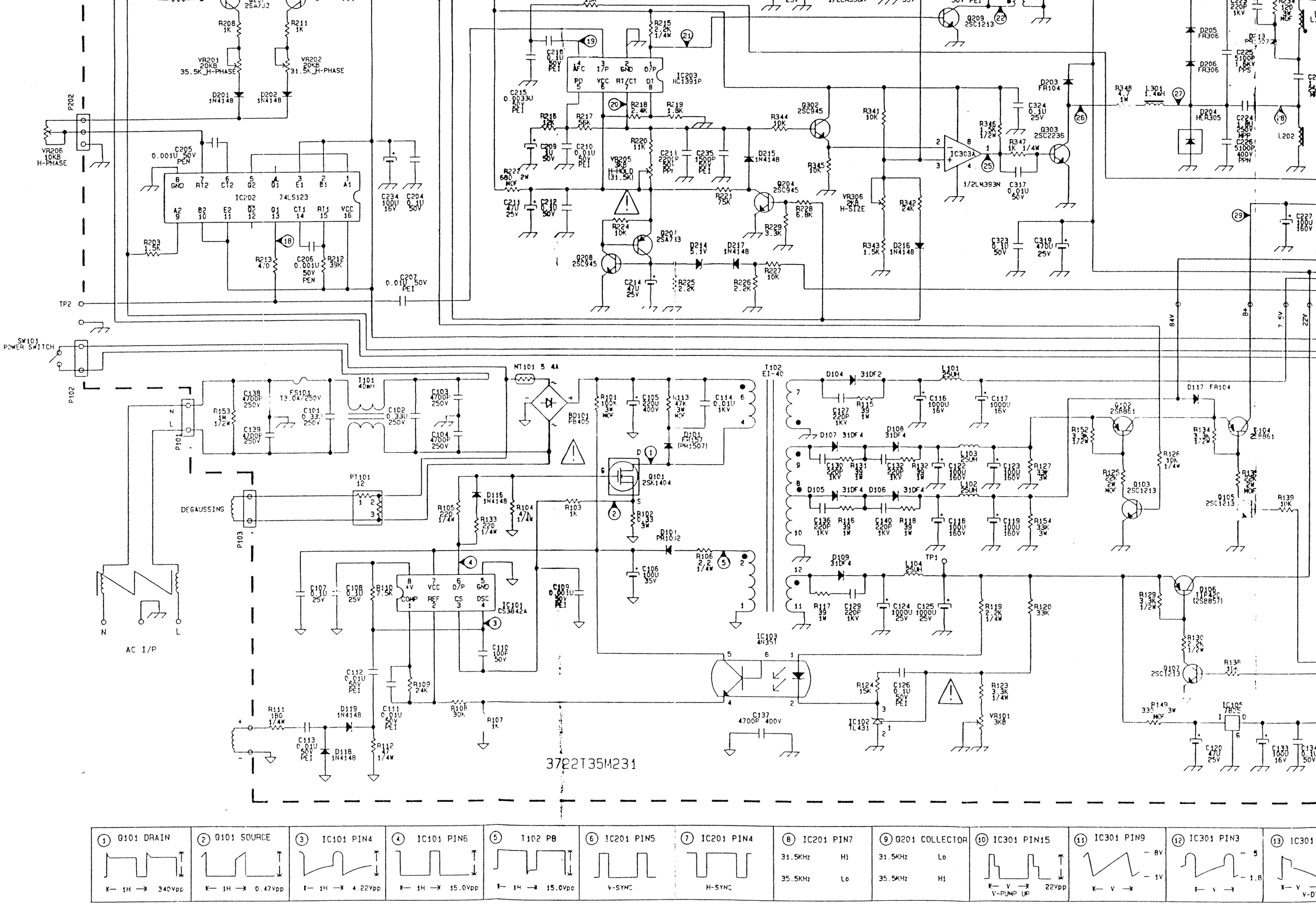
⑥ IC201 PIN5		⑦ IC201 PIN4		⑧ IC201 PIN7		⑨ Q201 COLLECTOR		⑩ IC301 PIN15		⑪ IC301 PIN9		⑫ IC301 PIN3		⑬ IC301 PIN2		⑭ C312 +		⑮ C312 -		⑯ IC302 PIN7		⑰ IC302 PIN1	
V-SYNC		H-SYNC		31.5KHz	Hi	31.5KHz	Lo	V-PUMP UP	22Vpp	8V	1V	5	1.8	44V		11V	-9.2V	+0.7V	-0.7V	-7.2V	-5.9V	-8.4V	-7.8V
				35.5KHz	Lo	35.5KHz	Hi									V-DY (+)	V-DY (-)						

⑱ IC202 PIN13	5Vpp	㉔ Q210 COLLE	
		H-O/P	
⑲ IC203 PIN4	4.0V / 1.8V	㉕ IC303 PI	
H-AFC			
⑳ IC203 PIN7	8.5V / 2.5V	㉖ Q303 COLLE	
㉑ IC203 PIN1	0.8Vpp		
㉒ Q209 COLLECTOR	22Vpp		
H-DRIVER			
㉓ Q210 BASE	1V / 0V		

2T35M231


R208 1K
R211 1K
VR201 20KB 35.5K_H-PHASE
VR202 20KB 31.5K_H-PHASE
D201 1N4148
D202 1N4148
P202
VR206 10KB H-PHASE
C205 0.001U 50V PEN
IC202 74LS123
R203 1.5K
R213 470
C206 0.001U 50V PEN
R212 39K
C234 100U 16V
C204 0.1U 50V
C207 0.01U 50V PEI
TP2
SW101 POWER SWITCH
P102
P101
C138 4700P 250V
FS101 T3.0A/250V
C101 0.33U 250V
T101 40mH
C102 0.33U 250V
C103 4700P 250V
C104 4700P 250V
C139 4700P 250V
R153 1M 1/2W
PT101
DEGAUSSING
P103
AC I/P
NT101 5.4A
BD101 PB405
R101 100K 3W MOF
C105 220U 400V
R113 47K 3W MOF
C114 0.01U 1KV
D101 FR157 (PM1507)
Q101 2SK1404
R102 0.33 3W
D101 PR1002
R106 2.2 1/4W
C106 100U 35V
R105 220 1/4W
D116 1N4148
R133 220 1/4W
R104 4.7K 1/4W
R103 1K
C109 0.01U 50V PEI
IC101 CS3842A
C107 0.1U 25V
C108 0.1U 25V
R110 7.5K
C110 100P 50V
C112 0.01U 50V PEI
R109 24K
R108 30K
R107 1K
C111 0.01U 50V PEI
R111 180 1/4W
D119 1N4148
C113 0.01U 50V PEI
D118 1N4148
R112 47 1/4W
IC103 4N35T
C137 4700P 400V
R124 15K
C126 0.1U 50V PEI
IC102 TL431
R123 3.3K 1/4W
VR101 3KB
T102 EI-40
D104 31DF2
C127 220P 1KV
R115 39 1W
L101 250UH
C116 1000U 16V
C117 1000U 16V
D107 31DF4
D108 31DF4
C130 220P 1KV
R131 39 1W
C132 220P 1KV
R132 39 1W
L103 250UH
C122 1000U 16V
C123 1000U 16V
R127 33K 3W
D105 31DF4
D106 31DF4
L102 250UH
C136 220P 1KV
R116 39 1W
C140 220P 1KV
R118 39 1W
C118 1000U 16V
C119 1000U 16V
R154 33K 3W
D109 31DF4
L104 250UH
TP1
R117 39 1W
C129 220P 1KV
C124 1000U 25V
C125 1000U 25V
R119 2.2K 1/4W
R120 33K
D117 FR104
Q102 2SB861
R152 3.3K 1/2W
R125 22K 2W MOF
R126 10K 1/4W
Q103 2SC1213
R134 3.3K 1/2W
Q104 2SB861
R135 22K 2W MOF
Q105 2SC1213
R139 10K
Q106 TIP42C (2SB857)
R129 3.3K 1/2W
R130 2.2K 1/2W
Q107 2SC1213
R138 2.7
R149 330 3W MOF
IC105 7805
C120 470U 25V
C133 1000U 16V
C134 0.1U 50V
8.4V
B+
7.5V
22V
D202 FR306
D206 FR306
C225 5100P 1.5KV MPP
C224 1.5U 250V MPP
C226 5100P 400V PPN
L202
D203 FR104
R348 4.7 1W
L301 1.4mH
R346 1.5K 1/2W
C324 0.1U 25V
Q303 2SC2236
R347 1K 1/4W
C317 0.01U 50V
IC303A
1/2LM393N
R341 10K
R342 24K
R343 1.5K
D216 1N4148
C323 0.1U 50V
C319 470U 25V
C227 100U 160V
D201 FR306
D205 FR306
C223 220P 1KV
R234 120 3W MOF
R215 2.2K 1/4W
C215 0.1U 50V PEI
IC203 MC1391P
C215 0.0033U 50V PEI
R218 2.4K
R219 1.8K
R216 12K
R217 56K
C209 2.2U 50V
C210 0.01U 50V PEI
R220 11K
C211 2200P 50V PPI
C235 1500P 50V PEI
VR205 3KB H-HOLD (31.5K)
R222 680 2W MOF
C211 47U 25V
C212 0.1U 50V
R224 10K
Q207 2SA713
Q208 2SC945
D214 5.1V
D217 1N4148
R225 2.2K
R226 2.2K
R227 10K
C214 47U 25V
Q302 2SC945
R344 10K
R345 10K
R221 75K
Q204 2SC945
R228 6.8K
R229 3.3K
D215 1N4148
VR206 2KB H-SIZE
R222 2W MOF
P204 2SC945
R223 75K
R228 6.8K
R229 3.3K
D215 1N4148
R345 10K